	Application No.	Applicant(s)
Notice of Allowability	09/914,955 Examiner	LINDAU, STEN Art Unit
	Chun Loo	2070
The MAILING DATE of this communication appears on the cover sheet with the correspondence address		
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.		
1. This communication is responsive to <u>amendment filed 10 February 2005</u> .		
2.  The allowed claim(s) is/are <u>11-16 and 18-24.</u>		
3. The drawings filed on 13 November 2001 are accepted by the Examiner.		
<ul> <li>4.</li></ul>		
Certified copies of the priority documents have been received.		
2. Certified copies of the priority documents have been received in Application No		
3. Copies of the certified copies of the priority documents have been received in this national stage application from the		
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		
5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.		
6. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.		
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached		
1)  hereto or 2)  to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date		
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).		
<ol> <li>DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.</li> </ol>		
·		
Attachment(s)	5 <b></b> N	. A. A. A. B. B. W. (DTO 150)
1. Notice of References Cited (PTO-892)		ratent Application (PTO-152)
<ul> <li>2. Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. Information Disclosure Statements (PTO-1449 or PTO/SB/0</li> </ul>	6. ☐ Interview Summary Paper No./Mail Dat 08), 7. ☐ Examiner's Amendr	te .
Paper No./Mail Date	_	
4.   Examiner's Comment Regarding Requirement for Deposit		ent of Reasons for Allowance
of Biological Material	9. 🔲 Other	

## **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: the instant application is deemed to be directed to an nonobvious improvement over the invention of Lee *et al.* ("Quantum well infrared photodetectors with bi-periodic grating couplers", Appl. Phys. Lett., Vol. 61, no. 20, 16 November 1992, pp. 2437- 2439). The improvement comprises in combination with other recited elements, that the grating interval increases with increasing distance from the central part of the detector.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (571) 272-2439. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SL

CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878